

Title (en)  
Exhaust system

Title (de)  
Abgassystem

Title (fr)  
Système d'échappement

Publication  
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Application  
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Abstract (en)  
An exhaust system 10 comprises a catalyst 18 and a cooling arrangement 20 including a heat exchanger unit 22 for cooling exhaust gases in the system. The invention relates to a method of operating the system comprising the steps of controlling the cooling arrangement to achieve an exhaust temperature within a first operating range for the catalyst appropriate to a first engine cycle and controlling the cooling arrangement so as to achieve an exhaust temperature within a second operating range for catalyst appropriate to a second engine system. A second operating range has a higher maximum temperature than the first operating range. Preferably the first engine cycle is a lean cycle and the second engine cycle is a stoichiometric cycle or a sulphur purge cycle. The first operating range is from 200-450 DEG C while a second operating range is from 350-750 DEG C. <IMAGE>

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Cited by  
US7861516B2; DE102011015513A1; GB2432900A; GB2432901A; GB2432901B; WO2005124114A1; US9086003B2

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